

IN THE SPECIFICATION

Docket No.: MBI-0034

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TECH CENTER 1600/2900

Please cancel claims 3-16 and 18.

Please amend claims 1, 2, and 17, as follows.

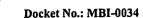
Please consider new claims 19-24.

- 1. (Amended) A transgenic plant, which plant comprises a recombinant polynucleotide comprising a nucleotide sequence selected from the group consisting of:
- (a) a nucleotide sequence encoding a polypeptide comprising SEQ ID NO: 2 or the complement thereof;
- (b) a nucleotide sequence encoding a polypeptide comprising a conservatively substituted variant of the polypeptide of (a);
- (c) a nucleotide sequence comprising a sequence of SEQ ID NO:1 or the complement thereof;
- (d) a nucleotide sequence comprising silent substitutions in the nucleotide sequence of one or more of (a) or (c);
- (e) a nucleotide sequence which hybridizes under stringent conditions to the nucleotide sequence of one or more of: (a), (b), (c), or (d) wherein the stringent conditions comprise wash conditions of 0.2 x SSC to 2.0 x SSC, 0.1% SDS at 50-65° C;
- (f) a nucleotide sequence comprising 18 consecutive nucleotides of a sequence encoding amino acid residues 35 through 40 of SEQ ID NO:2;
- (g) a nucleotide sequence comprising any of (a)-(f), which encodes a polypeptide that increases a plant's biomass;
- (h) a nucleotide sequence having at least 70% sequence identity to the nucleotide sequence of (f); and
- (i) a nucleotide sequence which encodes a polypeptide having at least 78% sequence identity to a conserved domain of amino acid residues 33 through 50 of the polypeptide of SEQ ID NO:2.
- 2. (Amended) The transgenic plant of claim 1, further comprising a constitutive, inducible, or tissue-active promoter operably linked to the nucleotide sequence comprising any of (a)-(i).
- 17. (Amended) A plant comprising altered expression levels of the recombinant polynucleotide in the transgenic plant of claim 1.
- 19. (New) A method for producing a plant having increased biomass, the method comprising altering the expression of the recombinant polynucleotide in the transgenic plant of claim 1 or the



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expression levels or activity of the polypeptide in the transgenic plant of claim 1 in a plant, thereby producing a modified plant, and selecting the modified plant for increased plant biomass.

- 20. (New) A method of identifying a factor that is modulated by or interacts with a polypeptide encoded by a recombinant polynucleotide in a transgenic plant, the method comprising:
- (a) expressing the polypeptide encoded by the recombinant polynucleotide in the transgenic plant of claim 1; and
- (b) identifying at least one factor that is modulated by or interacts with the polypeptide.
- 21. (New) The method of claim 20, wherein the identifying is performed by detecting binding by the polypeptide to a promoter sequence, or detecting interactions between an additional protein and the polypeptide in a yeast two hybrid system.
- 22. (New) The method of claim 20, wherein the identifying is performed by detecting expression of a factor by hybridization to a microarray, subtractive hybridization, or differential display.
- 23. (New) A method of identifying a molecule that changes activity or expression of a polynucleotide or polypeptide of interest in a transgenic plant, the method comprising:
- (a) placing the molecule in contact with the transgenic plant of claim 1; and,
- (b) monitoring one or more of: (i) expression level of the polynucleotide of interest in the plant;
- (ii) expression level of the polypeptide of interest in the plant; (iii) change of an activity of the polypeptide of interest in the plant; or (iv) change of an activity of the polynucleotide of interest in the plant.
- 24. (New) A plant comprising altered expression levels or the activity of the polypeptide in the transgenic plant of claim 1.

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